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Jacqueline Stother

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Tropical Products Institute 56/62 Gray's Inn Road London WC1X 8LU

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Requests for further information should be addressed to:

The Director,
Tropical Products Institute,
56/62 Gray's Inn Road
London WC1X 8LU

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The market for avocados in selected Western European countries

This report examines the market for avocados in eight Western European countries—France, the United Kingdom, the German Federal Republic (referred to as 'Germany'), Italy, the Netherlands, Belgium, Sweden and Switzerland.

Quantities are expressed in pounds (lb) and long tons (equivalent to 2240 pounds), while values are expressed in pounds (£) sterling and new pence (p) (100p = £1).

Summary and conclusions

1. There has been a rapid increase in European consumption of avocados over the last 10 years. In France and the United Kingdom at least, avocados are now sold in supermarkets and chain stores and retail prices have fallen.

2. Air-freighted avocados are no longer of much importance in European markets since the major suppliers are now able to sea-freight their fruit to Europe.

3. The major supplying country to the European markets is Israel, followed by South Africa and Martinique. Minor suppliers include Swaziland, Cameroon, Brazil, Kenya, Morocco and the Canary Islands.

4. The export season for northern hemisphere suppliers (including Israel) is October to April, while southern hemisphere suppliers (South Africa, for example) export avocados from April until September. The export season for countries in the tropics may not correspond to either of the two main seasons.

5. Production of avocados in Europe is negligible. Although Sicilian-grown avocados were available in Italy in 1969, extensive plantings have not been reported. There have been limited plantings in Greece.

6. Unfortunately avocados were not shown in a separate trade category by any European country until 1966 and by 1969 only four countries (France, Italy, Germany and the United Kingdom) had such a trade category, thus it has been necessary to estimate imports of avocados for some countries. European imports of avocados have risen from about 1,500 tons in 1964 to over 4,800 tons, valued at £1,300,000 in 1968.

7. France and the United Kingdom together account for about 90 per cent of imports of avocados into European countries.

8. The seasonal distribution of imports of avocados into European countries is discussed. Generally imports are higher during the period October to April than during the summer months, owing to the dominance of Israel as a supplier. However, United Kingdom imports show less seasonal fluctuation due to the importance of South Africa as a supplier to this market.

9. Imports into the eight individual countries (France, the United Kingdom, Germany, Italy, Netherlands, Belgium, Sweden and Switzerland) are analysed. Israel is the major supplier of avocados to all the countries surveyed with the exception of the United Kingdom, whose main supplier in some seasons has been South Africa. Martinique is an important supplier to the French market.

10. The quality requirements of the European trade are stringent. Most consumers show a preference for bright green, pear-shaped avocados of 10 oz to 12 oz weight (270 gm to 330 gm), typified by the Fuerte and Ettinger varieties. The Fuerte variety dominates European markets. Fruit from seedling trees is not acceptable since it is very variable in quality.

11. Avocados should be harvested while still firm. The fruit should be clipped from the tree and should be precooled to the shipping temperature as soon as possible after picking. Avocados are usually packed in single-layer cartons or wooden trays of 10 to 12 lb (5 kg) net weight. It is important that the cartons or trays are well ventilated.

12. The markets for avocados in the eight individual European countries are discussed in terms of the distribution of avocados, main outlets and prices at import and wholesale levels (where available). The average cif value of imports from Israel ranged from 12½p to 15p per pound in 1969.

13. There are no quota restrictions on avocados imported into European countries. The tariffs levied on imports are not high, ranging from nil in Sweden to 8 per cent ad valorem in the EEC countries. The EEC allows free entry of avocados from Associated Territories as does the United Kingdom for produce from Commonwealth countries and South Africa.

14. Regarding phyto-sanitary regulations, only the Italian regulations are restrictive, permitting imports from Mediterranean countries only, although other exporters may apply for a waiver of the regulations.

15. Future imports of avocados into European Countries cannot be estimated statistically owing to the paucity of data available. One 'guesstimate' puts European demand at a maximum of 12,000 tons in 1975.

16. Although supplies of avocados from Israel and South Africa were limited in 1969, this is only expected to be a temporary check since production in both countries is rising strongly. Even if supplies from present sources do not increase as fast as is predicted it seems unlikely that more expensive air-freighted fruit will find a regular market, since the expansion of demand will depend to a considerable degree on a reduction in retail prices.

17. A new supplier would probably find a better market for avocados during the months April to September when South Africa is virtually the only supplier to European markets, than during the winter months when Israel and several other countries can send supplies.

18. It is anticipated that the largest increases in demand for avocados in absolute terms will occur in France and the United Kingdom. The markets where imports have been increasing most rapidly in recent years are Sweden, Italy and Switzerland. No rapid increase in demand is expected in Germany.

During the last 10 years there has been a very rapid expansion in European consumption of avocados, particularly in France and the United Kingdom. A few years ago the fruit was very definitely in the luxury class, being highly priced at the retail level (about 20p to 25p per fruit), and it was sold either by high class fruiterers or used by the hotel and restaurant trade.

However, in France and the United Kingdom at least, avocados are now being sold increasingly in supermarkets and chain stores, and are therefore becoming known to a wider public; retail prices have fallen to about 10p to 15p for an average-sized fruit.

It must be emphasized however, that air-freighted avocados no longer dominate the European markets. In fact, almost all avocados imported into France, the largest buyer, are sea-freighted, and latterly the same has applied to the United Kingdom. This has helped the expansion of demand since sea-freighted fruit can be sold at lower prices, although this factor is not always apparent in wholesale prices, and the fall in retail prices is a fairly recent development.

THE SUPPLY OF AVOCADOS

Three countries—Israel, the Republic of South Africa and Martinique—dominate the trade, but minor suppliers include Brazil, Mozambique, Cameroon, Cuba, Kenya, Surinam, Ivory Coast, Swaziland, Morocco and the Canary Islands. Until 1964, the United States was another minor supplier, but in recent years increased competition has made the exportation of avocados to Europe unprofitable for her.

Major Supplying Countries

Israel

The Israeli export season extends at present from September or October to April, but the aim is to be able to market avocados all the year round[1] and therefore, to find new varieties of avocados to extend the production season (see page 17).

Israel is the most important supplier of avocados to almost all importing countries; her total exports of avocados rose from 545 tons in 1964 to 3,070 tons in 1968 (see Table 11 in Appendix). It is likely that exports of avocados will continue to rise since of the 2,500 acres planted to avocados in the 1967-68 season, 50 per cent were not fully bearing. The production target for 1970 is 7,500 tons, of which approximately 4,000 tons would be available for export. This implies a slower rate of increase in production and exports during the period 1968 to 1970 than during the preceding period 1966 to 1968, when the quantity of fruit exported rose by over 50 per cent per annum. However planting is increasing and crops are expected to rise by 30 per cent per annum after 1970.[2]

Israel has made very strenuous efforts to develop the European market for avocados, and has spent considerable sums of money on advertising and sales promotion. Through the Agricultural Export Company Limited (Agrexco), Avocado Weeks have been held in department stores and supermarkets in order to educate housewives in the value of this fruit and the best methods of serving it, and illustrated leaflets giving recipes for using avocados have also been distributed. In addition the Israelis have organized the production of the fruit in the field and have installed modern packing houses and precooling facilities to ensure the consistent quality of fruit exported; this, together with the fact that Israel is able to offer continuity of supply throughout her season, has undoubtedly been the reason for the promotion of a relatively unknown fruit such as the avocado by leading department stores and supermarkets. Moreover, domestic consumption in Israel is considerable, so that producers have little problem in disposing of fruit which is slightly below the stringent requirements of the export trade.

Although avocados were largely exported by air in earlier years, there has recently been an increasing use of sea-freight and by the 1967-68 season at least 80 per cent of Israeli avocados were exported by sea, the voyage from Haifa to Marseilles taking only five days, while the journey to London or Southampton takes between 12 and

14 days. Avocados are frequently re-exported overland from France to other Continental Countries and also to the United Kingdom. Fruit sent by the overland route to Northern Europe normally arrives in first-class condition, and the Israeli avocado industry now regards the use of air-freight as only being practicable at the beginning of the season in France and the United Kingdom and to supply minor markets such as Sweden or areas where sales are generally erratic; in these cases the fruit is likely to fetch higher prices to justify the extra freight charges. The use of sea-freight is estimated to reduce overall expenses by about £0·50 per 5 kg carton for shipments from Israel to France.[3]

The successful shipment of avocados by sea has only been achieved after considerable research on the part of Israel and other exporting countries, and the recognition that it is essential to remove the field heat and cool the fruit to 41° F (5° C) within 24 hours of harvesting, if it is to have an adequate shelf life. In addition it is only possible to ship cold tolerant varieties of avocados, such as the Fuerte, which will successfully withstand storage at temperatures of 40 to 45° F (4·4° to 7·2° C) without suffering chilling injury.

Republic of South Africa

The South African season extends from March or April to September or October. Much of what has been written about Israeli production also applies to production in South Africa, as regards development of European markets (chiefly the United Kingdom), field production and packing, continuity of supplies, and the existence of a large domestic market for avocados.

South African production of avocados is expanding very rapidly. Over the period July 1968 to June 1969 sales on the domestic and export markets exceeded 7,500 tons, compared with approximately 5,500 tons in the previous 12 months.[4]

South African exporters also now send large quantities of avocados by sea to the United Kingdom, although during the 1967 season some 200 tons were still exported to various European countries by air. The bulk of these air-freighted fruit were sent during the months of April, May, June and July, when the demand for the fruit was such that the regular sea-shipments had to be supplemented with weekly air consignments of approximately 1,000 cartons to maintain continuity of supplies.

The advantages of sea-freight to South African exporters is clearly indicated by the fact that when avocados are sea-freighted, the overall expenses, from Cape Town to London, including commission and handling charges, are approximately £0·37 per carton, compared with £1.25 per carton for air-freighted fruit.[5]

At present the relatively few South African exporters operate independently, however the possibility of co-ordinating shipments is now being discussed.[6]

Martinique

Martinique, whose export season is August-November/December, is an overseas Departement of France, thus enjoying many advantages over other suppliers to the French market, such as exemption from tariffs and taxes. Martinique is in fact the second most important supplier of avocados to the French market, and her exports rose from 166 tons in 1966 to about 500 tons in 1967 before declining slightly in 1968, but exports to other countries in the EEC appear to be negligible, apart from small quantities re-exported from France to Belgium/Luxembourg. Virtually all avocados exported from Martinique to France are sea-freighted, the voyage taking approximately 10 days.

Minor Supplying Countries

A list of minor supplying countries has been given above. In general, it seems that those countries on this list who market their fruit in the winter (Israeli-dominated) season have been exporting to salesmen other than those on the Agrexco panel, and it is doubtful whether they will be able to capture a significant share of the market because of the high quality of Israel's product and Israel's proximity to Western Europe. However the traditional trading links of Morocco with France and the Canary Islands with the United Kingdom, together with their proximity to those markets, may help these two countries develop an export trade in avocados.

On the other hand, competitors in the summer stand a better chance, provided they can sea-freight successfully, as the principal suppliers, South Africa and (in late summer) Martinique, are both far from Europe and it may be that the demand is less well supplied in this season.

Brazil, Mozambique, Cameroon and Swaziland are summer suppliers, and a part of Kenya's crop is also available in the summer. Although the sea voyage from Brazil takes, for example, about 28 days to Sweden, Brazilian fruit, which are polyethylene wrapped and shipped with citrus, have received a favourable reception there. Both Kenya and Mozambique have to air-freight and the fruit is, consequently, rather expensive. Avocados from Swaziland, however, are sea-freighted with South African fruit, and exporters in the Cameroon Republic can also use sea-freight.

Cuba, Surinam, Morocco and the Canary Islands are all late summer/autumn/winter suppliers, and a part of Kenya's crop is produced in the months January to March.

IMPORTS

Production of avocados in Europe is negligible at present and virtually all requirements are therefore imported. Sicilian-grown avocados are believed to have been sold in Italy for the first time in 1969, but since extensive plantings have not been reported and the tree takes three years to reach bearing age and five years to produce significant yields even in Israel, any threat to overseas suppliers from European production lies in the future. There can be very few places in Europe where the tree will grow and yield well, so the competition is regarded as unimportant, although there have been reports of small-scale planting in Greece.

Imports rose from approximately 1,500 tons in 1964 to more than 4,800 tons valued at over £1,300,000, in 1968 (these figures include small quantities of other tropical fruits). However, 1969 saw a slight decline in imports as a result of supply problems.

Table 1 shows estimated net imports of avocados into various European countries for the years 1964 to 1968 and provisional figures for 1969. Any discrepancy between the figures in Table 1 and those in the Tables in the Appendix is due to the exclusion of re-exports (so as to eliminate double-counting) in Table 1.

Unfortunately avocados are shown as a separate item in the official Trade Returns of only four countries: France and Italy (since 1966), West Germany (since 1967) and the United Kingdom (since 1969). Figures for the Netherlands, Belgium and Sweden, and for France, Italy and Germany in the earlier years of the series include imports of mangoes, guavas etc., but the bulk of this category is assumed to consist of avocados. For the United Kingdom, estimates of imports of avocados only have been made for the years 1966 to 1968, based on the Trade category 'Tropical Fruits including avocados, mangoes etc.'; while for Switzerland, estimates of imports of avocados have been made from trade sources, and the Trade Returns of exporting countries.

Table 1
Imports of avocados into selected Western European Countries 1964–69 (net of re-exports)

		1964	1965	1966	1967	1968	1969 (a)
France	Tons	532*	704*	800	1,591	2,309	2,232
	£,000	127*	165*	182	367	587	559
United Kingdom	Tons	897*	779*	(1,100)	(1,300)	(2,020)	1,926
	£'000	236*	273*	(360)	(460)	(650)	594
German Fed. Rep.	Tons	29*	56*	79*	127	215	202
	£'000	9*	18*	26*	34	69	71
Italy	Tons	10*	14*	11	27	55	70
	£'000	3*	4*	3	7	16	19
Netherlands	Tons	45*	22*	28*	48*	63*	72*
	£'000	6*	5*	6*	11*	21*	21*
Belgium/Luxembourg	Tons	20*	20*	27*	58*	90*	78*
	£'000	6*	5*	8*	17*	27*	27*
Sweden	Tons	7*	11*	24*	36*	63*	120*
	£'000	3*	3*	8*	12*	25*	45*
Switzerland	Tons	(15)	(15)	(21)	(32)	(80)	(80)
	£'000	...	...	...	...	...	...
TOTALS	Tons	1,555*	1,621*	(2,090)*	(3,219)*	(4,895)*	4,780*
	£'000	390*	473*	(593)*	(908)*	(1,395)*	1,336*

(a) Provisional * Including mangoes etc ( ) TPI estimate ... Not available
Source: Derivec from Officially Published Trade Returns

Table 1 shows that France and the United Kingdom together account for about 90 per cent of the imports of avocados into these European markets, and until 1968 expansion of demand in France and the United Kingdom continued at a rapid rate. Imports into France were 190 per cent higher in 1968 than in 1966 and United Kingdom imports rose by 84 per cent over the same period. The other European markets, although also expanding rapidly, are still of relatively minor importance.

Thus the largest of them, the Federal Republic of Germany, imported only 215 tons of avocados in 1968. Imports into most countries showed a decline in 1969 because supplies from Israel and South Africa were limited by adverse weather conditions, but imports into some of the smaller markets, notably Sweden and Italy, increased.

Although this report is limited to selected European countries, there are small markets in some others. According to Israeli export Trade Returns (see Table 11) the following European countries are buyers, with 1968 tonnages in brackets: Denmark (18), Finland (4), Norway (6), Greece (81).

Seasonal Distribution of Imports

The seasonal distribution of imports of avocados into France, Germany, the United Kingdom and Italy is shown in the histograms fig. (i) to fig. (iv).

Generally speaking, imports of avocados are relatively light during the summer months May to September, but this pattern is not followed by imports into the United Kingdom where in most seasons imports of avocados are highest during the summer months.

It will be seen that the seasonal distribution of imports reflects the production seasons of the major suppliers to each country. For most European countries Israel is the chief supplier of avocados, and her export season, from October to April, explains the preponderance of winter imports in Italy, West Germany and France; in the latter case, this is accentuated by supplies from Martinique, the second largest supplier, from August until December. However, the Republic of South Africa, whose exporting season extends from April to October, has for many years been of rather more importance than Israel on the United Kingdom market (with the exceptions of 1967 and 1969—both drought years in South Africa) thus giving the United Kingdom an atypical seasonal distribution of imports.

Swedish imports of tropical fruits, largely from Israel, not surprisingly show a peak during the winter months. However, imports into Belgium and the Netherlands, which probably include a considerable percentage of mangoes and other fruits, do not show a clear seasonal pattern.

Unfortunately, there are no statistical data relating to imports of avocados into Switzerland, but since Israel appears to be the major supplier of this fruit, it may be assumed that imports show the characteristic winter peak.

As has been seen, the level of imports into many European countries is much higher in the winter than in the summer, but opinions vary as to the reason for this. During the winter, the principal supplier is Israel, and she has followed a very aggressive policy, so it could be said that the demand in this period is 'exporter generated'. Possibly the summer supply does not match the potential demand, but it is clear that the two leading suppliers, South Africa and (in late summer) Martinique, have exported mainly to countries, respectively the United Kingdom and France, with whom they have traditional trading links, and where incidentally, they benefit from preferential tariffs. Nevertheless, the retail price of avocados in the summer is high compared with domestically grown fruits and many importers think that the availability of the latter is the reason for the summer 'trough', even though the latter may not directly replace the former in a meal. There is also the possibility that as a 'starter' to a meal, the avocado faces competition from melons. The latter do not fall to 'popular' prices in the United Kingdom until August or September, whereas in melon-growing countries (France, Italy and the Netherlands) the price declines earlier. This is a possible explanation of the atypical seasonal distribution pattern in the United Kingdom. Finally, another reason advanced by importers for the summer 'trough' is that the avocado deteriorates more quickly in the warmer summer temperatures, so wholesalers are less inclined to deal in them, although this problem is less acute in the United Kingdom.

IMPORTS INTO INDIVIDUAL COUNTRIES

France

France is now the largest European market for avocados. Imports increased from about 500 tons in 1964 to 2,322 tons in 1968 (see Table 4 in Appendix). Preliminary figures for 1969 show a fall of 4 per cent to 2,241 tons.

In 1967 the chief suppliers of avocados to France were Israel, who supplied 54 per cent, Martinique (31 per cent), South Africa (5·5 per cent), Cameroon (4 per cent) and Cuba (2·6 per cent). However, in 1968 Israel's share of the market rose to 66 per cent, South Africa's to 8 per cent, while Martinique's share fell to 20 per cent and Cameroon's remained at 4 per cent; the Ivory Coast also supplied small quantities in 1968.

In 1969 poor crop conditions in Israel caused her share of the French market to fall to 61 per cent, while South Africa supplied 13 per cent, Martinique 18 per cent and Cameroon maintained her share of the market at 4 per cent.

Regarding the seasonal distribution of imports into France, only quarterly figures are available for 1967, but monthly data thereafter (summarised in fig. (i)). The histograms show the summer slump in imports (although this was less pronounced in 1969 than in 1968), and the dominance of Israel as a supplier, being the major source of avocados for six months of the year (November to April). Martinique is the major source of supply in September and October as is South Africa during the months May to August. Cameroon is a minor supplier from February or March until June and Cuba sent supplies during the third quarter of 1967.

There are two peaks in supply—one in February/March and the other in October/November, while imports are at their lowest in July and August, when demand may well be limited by the holiday season and competition from domestic fruits.

The United Kingdom

As has been mentioned above, there were no separate statistics of imports of avocados into the United Kingdom prior to January 1969, but estimates compiled from the item 'Tropical Fruits including avocados, mangoes etc' in the Trade Returns, suggest that imports of avocados rose from about 800 tons in 1964 to about 1,300 tons in 1967 and probably reached 2,020 tons net of re-exports in 1968. Preliminary figures for 1969 put imports at 2,006 tons and net imports at 1,926 tons, in that year. In 1967 it was estimated that imports of avocados were valued at £460,000. In 1969 the value of imports of avocados was £613,612.

Until 1966, South Africa was the major supplier of tropical fruits to the United Kingdom, often closely followed by Israel (as in 1964), but in 1967 and 1969 these positions were reversed, probably as a consequence of drought conditions in South Africa. Preliminary 1969 figures (see Table 5 in the Appendix) show Israel as the largest supplier (52 per cent) followed by South Africa (44 per cent); Swaziland supplied 1·5 per cent, Kenya less than one per cent and the Canary Islands—a new supplier—1·3 per cent. Other suppliers included Peru, the United States, Morocco, Egypt and Trinidad.

There are significant re-exports of avocados from the United Kingdom, chiefly to France during the summer months and to Eire. These amounted to approximately 160 tons in 1968 and to 80 tons in 1969.

The seasonal distribution of imports of avocados into the United Kingdom is largely governed by the exporting seasons of the two major suppliers, and since these seasons are complementary, Israel supplying the market from October until April and South Africa from April till October, in theory at least, supplies of avocados can be evenly distributed over the year. In fact there has been some seasonal fluctuation directly attributable to supply factors, giving a drop in imports during the summer of 1967, but a high level of imports in the summer of 1968 (see fig. (ii)). In 1969, the first year that avocados were shown as a separate trade category, supply factors affected the seasonal import distribution—the bulk of the South African crop was received in May, June and July and imports in August and September were very limited.

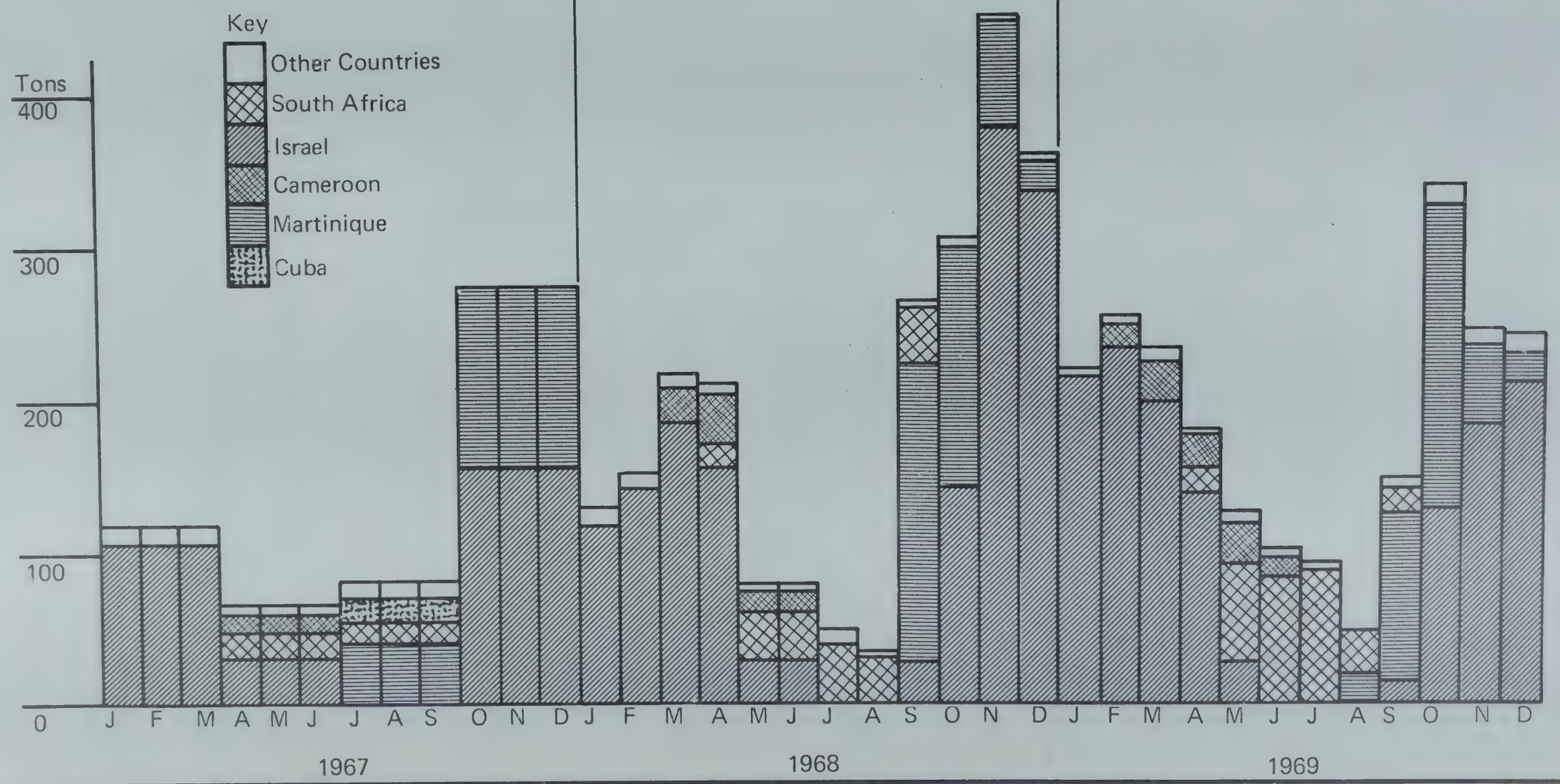
Supplies are also available during the summer months from Swaziland, during the months April to August from Kenya and from August until January from Jamaica, while Moroccan avocados have been received during February, March and April. The Canary Islands first sent supplies in November and December 1969.

German Federal Republic

In spite of the size and wealth of her population, imports of avocados into Germany amounted to only 219 tons in 1968, although this represents a 237 per cent increase over the tonnage of avocados imported in 1966, estimated at 65 tons.[7] Almost all of this tonnage was supplied by Israel, although minor suppliers included Mozambique (13 tons in 1968) Ivory Coast (8 tons in 1968), and South Africa (6 tons in 1968). Minor suppliers in 1967 included Martinique, Colombia and the Cameroon. Imports

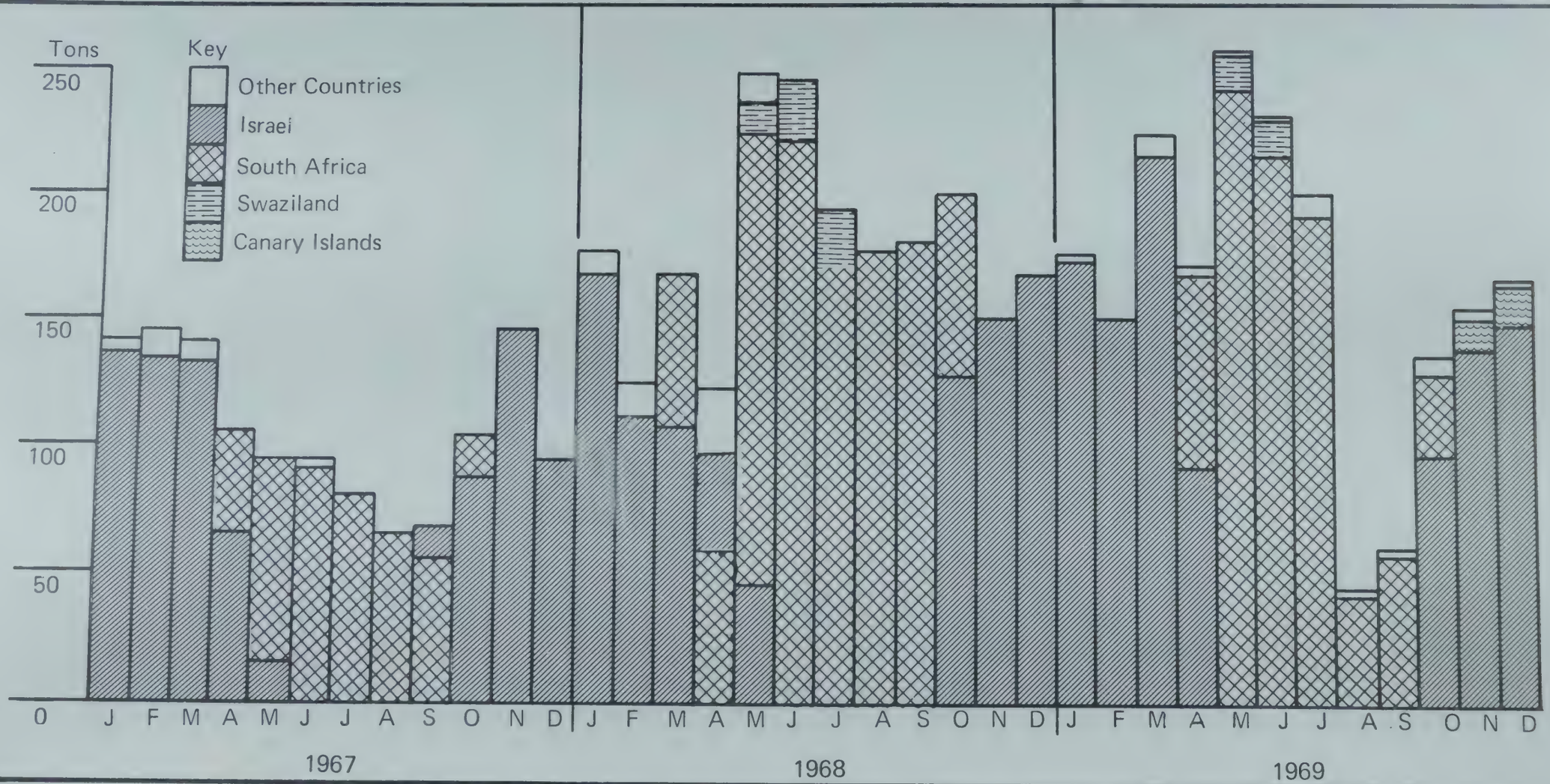
Figure (i)

Avocados Monthly imports into France 1967-69 (quarterly averages for 1967)



Souce: 1967: Commerce Exterieur Direction Générale des Douanes et Droits Indirects.
1968 & 1969: Institute Français de Recherches Fruitiéres Outre-Mer.

Figure (ii)
Avocados Monthly imports into United Kingdom 1967–69(estimated imports for 1967–1968)



Source: Fruit Intelligence Commonwealth Secretariat.

dropped slightly to 206 tons in 1969 when Israel supplied 85 per cent and South Africa 13 per cent.

Because of Israel's preponderance as a supplier, the importation of avocados into Germany was virtually limited to the months October to April prior to 1969, when South Africa contributed substantial quantities from May to August (see fig. (iii)).

Italy

The tonnage of avocados imported into Italy amounted to only 25·3 tons in 1967, compared with 11·2 tons in 1966 but imports in 1968 doubled again to reach 55·3 tons (see Table 7 in the Appendix) and then rose to 70·3 tons in 1969.

In 1966 almost all imports came from Israel, with about 0·8 tons from India, and in 1967 Israel was the only supplier. However, in 1968, although Israel supplied 87 per cent of imports, small quantities of avocados were also received from Greece, Uruguay and the United States.

Once again the seasonal distribution of imports is determined by the Israeli export season (see fig. (iv)) and in addition phyto-sanitary regulations preclude imports in May and June except from Mediterranean countries.

Netherlands

The actual tonnage of avocados imported into the Netherlands is not at all clear (there is no separate category for this fruit in the Trade Returns—see Table 8 in the Appendix). Israeli export figures suggest imports of 12, 10, 16 and 10 tons respectively in 1965, 1966, 1967 and 1968, while air-freighted supplies direct from South Africa amounted to 0·5 ton in 1967, but it seems likely that some imports are made via France, Belgium and in 1969, the United Kingdom. Cadillat[8] suggests that imports of avocados were 21 tons in 1966 and 33 tons in 1967. Trade sources suggest that imports of avocados may have amounted to 50 tons in 1968.

Because avocados are not of overwhelming importance in the Trade category 'Mangoes, guavas, avocados, etc', the seasonal distribution of imports does not show the typical winter peak (except in 1966); in 1967 the peak month for imports of tropical fruit was April when, according to trade sources, Mozambique is an important supplier of avocados; Brazil and Egypt also send small consignments during the summer months. In 1969 the peak month was June when the United Kingdom was the major supplier—presumably of South African avocados, and possibly also of Kenyan mangoes.

Belgium-Luxembourg

Imports of tropical fruit are shown in Table 9 in the Appendix.

Once again the actual tonnage of avocados imported can only be estimated; Cadillat[8] puts the quantities at 21 tons in 1966 and 44 tons in 1967. In the latter year Israel supplied 37 tons, South Africa 2 tons, and Martinique 2 tons. In 1968 imports of avocados presumably rose again since receipts of tropical fruit from Israel amounted to 69 tons. The 6 tons of fruit received from South Africa during the summer months was probably entirely of avocados. Total imports of tropical fruit fell to 85 tons in 1969.

The seasonal distribution of imports of tropical fruit shows only a minor decline in imports during the summer months, and imports of mangoes etc, rather than avocados, perhaps account for this.

Figure (iii)

Avocados Monthly imports into Germany 1967-69

Source : Aussenhandel Statistisches Bundesamt

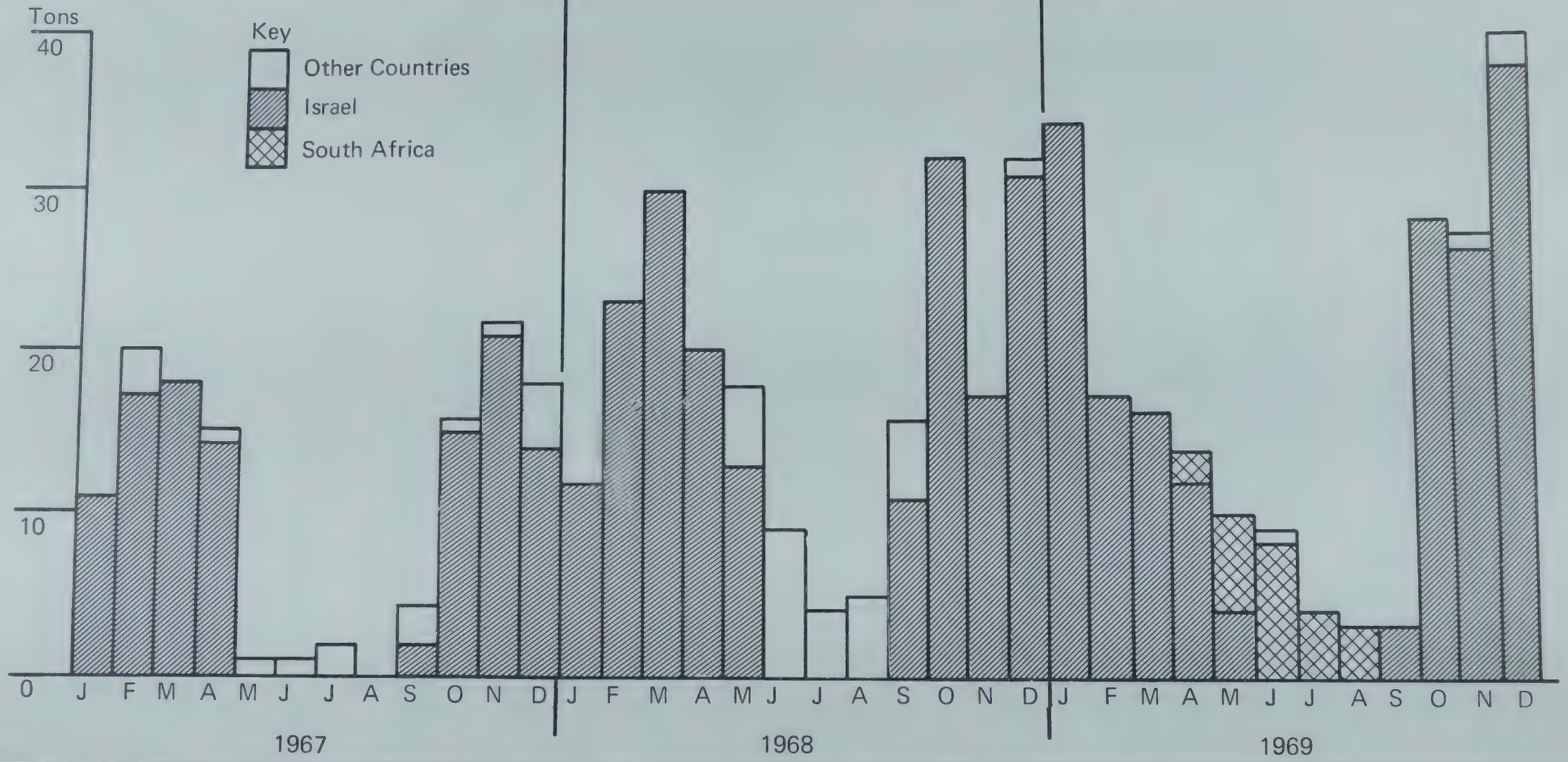
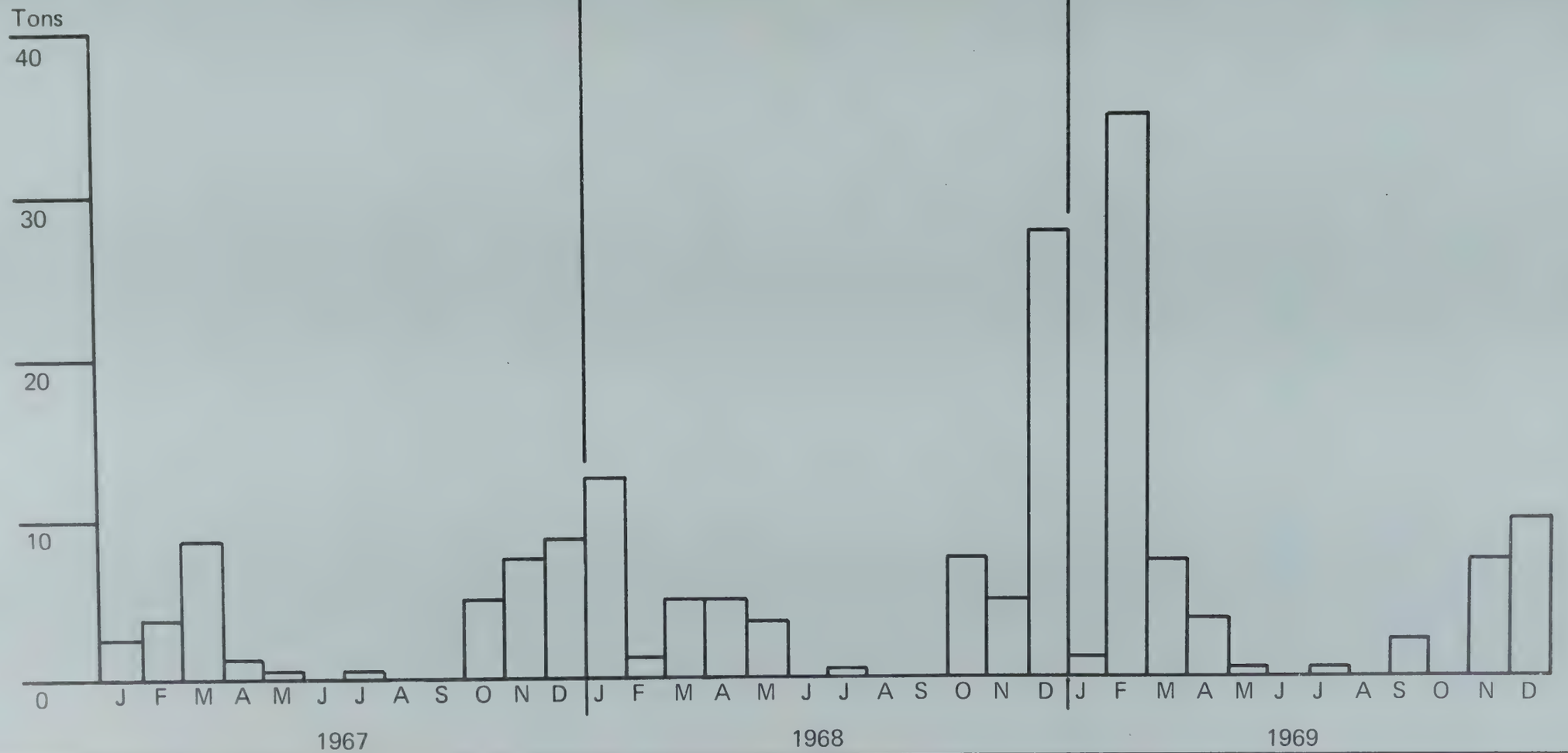


Figure (iv)

Avocados Monthly imports into Italy 1967-69

Source : Statistica Mensile del Commercio con l'Estero, Instituto Centrale di Statistica.



Sweden

The item in the Trade Returns 'avocados, mangoes, guavas etc' shows a rise in imports from 2 tons in 1963 to 63 tons in 1968. Imports during 1969 amounted to 120 tons.

Israel is the principal supplier of tropical fruit to Sweden, accounting for 81 per cent of the total in 1968 (see Table 10 in the Appendix) most of which may be assumed to be of avocados. The 2 tons supplied by South Africa and the 7 tons received from Brazil in 1968 were also avocados, according to members of the trade. In 1969 Israel supplied 89 per cent of the total, South Africa 7 per cent and Kenya 2·5 per cent.

Only quarterly data are available to show the seasonal distribution of imports. These show the typical decline in imports during the summer months and the importance of Israel as a supplier to this market.

Switzerland

Unfortunately, there are no statistics available for the importation of avocados into Switzerland since these are included in a general trade category which covers imports of pineapples (prior to 1968) coconuts etc, as well as minor tropical and subtropical fruits. However, Israeli exports of avocados to Switzerland rose from 13 tons in 1964 and 1965 to 75 tons in 1968. Air-freighted exports from South Africa in 1967 amounted to 1·6 tons.

QUALITY REQUIREMENTS, VARIETIES ETC

Buyers require avocados to arrive in a firm, slightly backward condition, absolutely free from disease, bruising or other skin disfigurements. The fruit must be accurately size graded, and avocados of between 10 oz and 12 oz weight (270 gm to 330 gm) are preferred in most European markets, although the United Kingdom trade generally prefers small avocados and Swedish consumers seem to like large fruit. It is generally recognized that European markets have very stringent requirements as regards quality, largely because avocados sell relatively slowly, being luxury fruit, so it is necessary for the fruit to have a long shelf-life. Thus the successful marketing of avocados in Europe depends to a large degree upon strict adherence to good handling and packing practices.

Most European consumers show a preference for bright green, pear-shaped avocados, typified by the Fuerte and the Ettinger. Varieties with large or loose stones are not acceptable to buyers.

The European market for avocados is dominated by the Fuerte variety, which comprises about 50 per cent of Israeli exports. This is in many ways an ideal fruit for transporting over long distances, and is favoured by many buyers because of its characteristic nutty flavour, and attractive bright green colour. However, this variety has the disadvantage to the grower of low yields, and under certain circumstances the fruit will only partially soften when fully ripe.

The chief Israeli varieties are:

Variety	Harvesting Season	Percentage Exports
Fuerte	November/February	50%
Ettinger	October/February	40%
Benik	December/February	10%
Anaheim	March/April	
Nabal	March/April	
Hass	January/May	

Of the newer varieties, Hass is perhaps the most promising, since it yields heavily and produces a small fruit with an excellent flavour, which carries well. Unfortunately, it has a dark purple, almost black, warty skin and this has led to some consumer resistance; in fact the United Kingdom is probably the only European market where Hass can be readily marketed at present.

Ettinger has also proved a satisfactory variety for export, but it does not normally reach the eating quality of the Fuerte, although it resembles this fruit in many ways. Nabal is another variety which has had limited success. However, it is a rather large fruit.

The Fuerte is also the main variety exported from South Africa, from March until September, other varieties exported being Edranol (August to October), Collinson, Ettinger, Itzama, Linda, Ryan and Hass.

HARVESTING AND PACKING

Avocados should be harvested when still firm. It is difficult to advise on criteria for harvesting avocados, since conditions vary so greatly with variety and locality*. The fruit should always be clipped flush rather than pulled from the tree and should be pre-cooled to the shipping temperature as soon as possible after picking. Sea-freighted fruit is usually carried at 41°F (5°C), but some varieties suffer chilling injury at this temperature, and should not be cooled below 55°F (12·5°C). Some exporters dip the fruit in paraffin wax to prevent stem dropping and to limit desiccation.

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*In California avocados may not be picked until the oil content of the flesh exceeds 8 per cent; however, this criterion would not necessarily be a good guide to maturity in other producing areas.

For air-freight, single layer fibreboard cartons of 10-12 lb (5 kg) net weight are used, the avocados being packed on a layer of wood wool, and often individually wrapped in tissue paper or in polyethylene wrappers. When sent by sea, flat wooden trays may be used, although all Israeli avocados are shipped in cartons and South African exporters have investigated the possibility of using telescopic fibreboard cartons. It is important that sufficient ventilation holes be provided in the carton to prevent over-heating. Counts of 12, 15, 18 and 21 fruits to a carton are most popular in European markets.

THE MARKET SITUATION IN VARIOUS EUROPEAN COUNTRIES: PRICES AND DISTRIBUTION

France

a. *Distribution*

There are relatively few importers of avocados in France, and of these, one who specializes in the importation of exotic fruits is reported to supply 50 per cent of the market.[8]

The Paris wholesale market probably handles about 75 per cent of avocados imported into France, and it was anticipated that the new market at Rungis, opened in March 1969, would increase the sphere of influence, and hence the dominance of the Paris market. It has been estimated that the Paris region accounts for 60 per cent of avocados consumed in France,[8] the difference between this figure and the quantities handled being accounted for by on-shipments to provincial France, and also to neighbouring countries, notably Belgium. In the provinces the wholesale markets are of very minor importance in the distribution of avocados, since most provincial sales are made through supermarkets which have a central buying agency, or alternatively, buy their supplies on the Paris market. In Lyons, for example, one of the largest wholesale markets in France, serving a city of 1 million people and an extensive hinterland, only three of the larger wholesalers displayed avocados on their stands in 1968, even during the pre-Christmas period.

The most important retail outlets for avocados in France are chain stores, both food stores and department stores; this is especially true of provincial France where individual retailers are less likely to stock an unknown fruit and luxury retailers are relatively few. In Paris, on the other hand, the avocado is now sufficiently well-known to be stocked by individual retailers in some districts at least, while there are also considerable numbers of specialist luxury retailers who pioneered the sale of this fruit. Restaurants are on the whole relatively unimportant outlets for avocados.

Although by French law all fruit and vegetables must be sold by weight, in practice avocados are almost invariably sold by the piece.

b. *Prices*

The average import values (cif) of avocados imported into France in 1966, 1967, 1968 and 1969 were as follows:

	1966	1967	1968	1969
	New pence per lb			
Israel	11p	11½p	12½p	12½p
South Africa	16p	19½p	14½p	12p
Martinique	5½p	7½p	8p	7½p
Cameroon	9p	8p	7½p	7½p

Source: *Commerce Exterieur*

It should be noted that the sterling devaluation in late 1967 has the effect of inflating the 1968 values relative to those in earlier years: average import values fell in franc terms in 1968.

Average monthly wholesale prices in the Paris wholesale market for the years 1967 to 1969 are shown in Table 2. This table is expressed in francs per pound since the sterling devaluation of November 1967 and the franc devaluation of August 1969 render any conversion into sterling meaningless for purposes of year-to-year comparison of prices.

Wholesale prices were considerably lower in 1968 than in 1967. However, after March 1969 prices rose above the 1967 level, due to a reduction in supplies from Israel, and this trend was accentuated by the franc devaluation in August 1969.

Prices are high during the months June to October and reach their peak in September, at the end of the South African season and the beginning of the Israeli season. Supplies from Martinique and Cameroon do not fetch such high prices as those from Israel and South Africa, probably because of quality considerations.

United Kingdom

a. *Distribution*

There are two main importing distribution channels in the United Kingdom: namely, the Israeli export firm (Agrexco)/wholesalers' panel, which imports all Israeli avocados, and the firms which handle South African sea-freighted fruit. Several importers handle the small quantities of avocados received from other sources.

The trade in avocados is probably even more concentrated in the United Kingdom than in France: it was estimated that London took about 80 per cent of supplies in 1967-68. However, the provincial trade is now expanding. All Israeli avocados whether air-freighted, sea-freighted, or shipped overland via Marseilles, are now repacked and if market conditions warrant it, stored, at a packhouse in Kent.[9] Agrexco determines the quality control and distribution policies for the packhouse, although the actual operation of the packhouse is carried out by a subsidiary of one of the members of the wholesalers' panel. Here the polyethylene wraps are removed from the fruit, which is then checked for quality. The provision of cold storage facilities allows orderly marketing of the avocados, so that the wholesalers are not swamped with fruit and prices may be maintained at a steady level.

Outlets for avocados in the United Kingdom vary somewhat from those in Continental European markets, because for many years avocados were served mainly in high-class restaurants and, in spite of the increase in retail sales, it was estimated that about 70 per cent of avocados marketed in the United Kingdom were utilized by restaurants as late as 1967. However, during the last two or three years, several large chain-stores and multiples have begun to stock avocados in selected outlets, while in the London area at least, many small independent retailers also stock this fruit, and there is a growing tendency to do so amongst high-class fruiterers in the provinces.

b. *Prices*

The average (cif) values of avocados imported from the major sources were as follows in 1969:

		New pence per lb		
Israel	South Africa	Swaziland	Canary Islands	Kenya
13½p	13½p	16½p	13½p	23½p

The high average values of imports from Swaziland and Kenya are partly due to the fact that supplies from these countries are received during the summer months when

Table 2
France: Monthly average prices for avocados on the Paris wholesale market

Francs per pound

		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Israel	1967	2·10	1·77	1·90	2·00	2·00(a)	...	...	...	...	2·72	1·81	1·70
	1968	1·44	1·66	1·63	1·72	1·63	1·63(a)	...	...	...	1·85	1·68	1·45
	1969	1·44	1·45	1·87	2·00	2·54	...	...	...	...	2·81	2·40	2·54
South Africa	1967	...	...	...	...	...	...	2·48	2·58	2·72	2·72(a)	...	...
	1968	...	...	...	...	...	...	...	...	...	...	...	...
	1969	...	...	...	...	...	2·95	2·86	2·81	3·06	...	...	...
Martinique	1967	...	...	...	...	...	...	...	...	...	1·59	1·36	1·36
	1968	...	...	...	...	...	...	...	...	...	1·41	1·47	...
	1969	...	...	...	...	...	...	...	...	2·54(a)	2·00	1·81	1·81(a)
Cameroun	1967	...	...	...	...	1·59	1·81	1·81(a)	...	...	...	...	...

... Not quoted (a) Quoted for less than two weeks

Source: *Fruits d'Outre Mer* January issues

prices are generally higher. Also Kenyan avocados (entirely air-freighted) are sent to fill temporary gaps in supply, when prices are exceptionally high.

Table 3 shows monthly average prices paid for avocados in Covent Garden market over the last five years. Examination of the table shows that prices generally fell from 1965 to 1968, but recovered again in 1969 when supplies increased very little over the 1968 level. On the whole prices are higher during the summer than the winter months. Prices for Israeli avocados are highest in September and March, at the beginning and end of the season; however prices for South African avocados, while usually high (above Israeli prices) at the beginning of the season, fluctuate considerably, according to the supply situation.

In 1969 wholesale prices ranged from £1·20 to £2·38 per carton (approximately 11p to 21½p per lb) in Covent Garden, but were probably rather higher in the provinces, owing to on-shipment costs. Retail prices for avocados range from 10p to 25p per piece in independent retail stores. Prices in chain stores and supermarkets are usually lower, ranging from 7½p to 17p per piece.

German Federal Republic

a. *Distribution*

As has been mentioned above, imports of avocados into Germany are very small at present compared with imports into France and the United Kingdom, and the trade does not foresee a very rapid increase in sales. It was the opinion of one importer that avocados are sold largely on 'snob' appeal and that the number of people who would buy fruit for this reason is strictly limited. Possibly the fact that there is no one large metropolitan city has made the distribution and promotion of exotic fruits in Germany more difficult than in France and the United Kingdom.

The most important retail outlets for avocados appear to be supermarkets.

b. *Prices*

The average import values (cif) of avocados imported into Germany in 1967, 1968 and 1969 were:

	1967	1968	1969
	New pence per lb		
All sources	12p	14½p	15½p
Israel	12½p	14p	15p
South Africa	...	18p	18½p
Mozambique	...	14½p	...
Martinique	10½p	...	...
Ivory Coast	...	18p	...

... Not available

Source: from Trade Statistics, see Table 6 of Appendix

Again it should be noted that the sterling devaluation in late 1967 had the effect of inflating 1968 prices, as did the Deutschmark revaluation of late 1969 to a small extent, in 1969.

Wholesale prices ranged from £1·25 to £2·09 per 5 kg carton (about 11p to 19p per lb) during the first part of the 1968/9 Israeli season, and during the previous season prices had averaged £1·57 per carton (about 14½p per lb).

Table 3
United Kingdom: Monthly average wholesale prices for avocados in Covent Garden Market, London

£ and new pence per carton

		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual Range Low	Annual Range High
Israel carton 5 kg	1965	2·11	1·98	2·12	...	...	...	...	...	...	1·84	1·51	1·59	1·51	2·12
	1966	1·61	1·69	1·77	1·53	1·37	...	...	...	1·63(b)	1·55	1·25	1·52	1·25	1·77
	1967	1·43	1·67(b)	1·42	1·44(b)	1·50(b)	...	...	...	2·25(a)	2·00	1·45	1·45	1·42	2·25
	1968	1·33	1·55	1·61	1·44	1·43	...	...	...	1·75(a)	1·44	1·40	1·33	1·33	1·75
	1969	1·20	1·54	1·70(b)	1·58(b)	1·25(b)	...	...	...	2·38(a)	1·83	1·47	1·61	1·20	2·38
South Africa 5 kg	1965	...	...	...	2·42	1·71(b)	1·57(b)	1·70	1·90	2·13(b)	1·60(b)	...	...	1·60	2·42
	1966	...	...	2·03(b)	1·47	2·05	1·74	2·12	1·73	1·17(b)	1·38(a)	1·00(a)	...	1·00	2·12
	1967	...	...	1·63(a)	1·94	1·69	2·11	2·00(b)	2·02	2·03	1·48(b)	1·19(a)	...	1·19	2·11
	1968	...	...	1·68	1·68	1·56	1·46	1·37	1·60	1·47	1·33(a)	1·87(a)	...	1·33	1·87
	1969	...	...	2·35(b)	2·13(b)	1·52	1·49(b)	1·60(a)	1·85(b)	1·86(b)	1·37(b)	...	...	1·37	2·35
Kenya carton 11–13 lb	1968	1·50(a)	...	...	1·72(b)	...	...	1·50(a)	...	...	...	...	...	1·50	1·72
	1969	...	...	...	2·25(a)	1·67(b)	1·60(b)	1·81(b)	1·90(b)	...	...	...	...	1·60	2·25

... Not quoted (a) Quoted for one week only (b) Not quoted every week of month

Source: *Fruit Trades Journal*

Italy

a. *Distribution*

Although Italy is nearer to Israel than the other European countries under discussion, a significant proportion of Israeli exports of avocados are air-freighted to Italy, notably to Rome, because of the slow rate of turnover of the fruit. Consignments to the Milan market are generally sea-freighted.

b. *Prices*

The average import values of avocados imported into Italy in 1966, 1967, 1968 and 1969 were:

	1966	1967	1968	1969
		New pence per lb		
All sources	13p	12p	13p	12p
Israel	13½p	11½p	...	...

... Not available
Source: derived from *Commercio con l'Estero*

In early 1969 the price paid for avocados by wholesalers in Rome (ex-Customs) was £2·21 per carton (about 20p per lb).

Netherlands

a. *Distribution*

Imported fruit is either sold on the auction markets in Rotterdam, or imported by chain stores directly. Israel has a single agent in the Netherlands and one or two other firms handle imports from Egypt and Mozambique. Avocados are sold on the Fruit Exchange in Rotterdam and in wholesale markets, for example in Amsterdam.

Supermarkets are an important retail outlet for avocados.

b. *Prices*

Import values of all tropical fruit averaged 12½p per lb in 1967, 15½p in 1968, and 14½p in 1969. The wholesale (auction) price varied between £1·40 and £2·2 per carton (about 13p and 20p per lb) for Israeli avocados in 1968.

Avocados are sold by the largest supermarket chain at prices ranging from 11p to 18p per piece.

Belgium

a. *Distribution*

One importing wholesale firm handles all Israeli avocados, while two or three others import from South Africa, Martinique, and occasionally from the Ivory Coast and the Canary Islands. It seems likely that some wholesalers, or even retail outlets, obtain supplies from Paris.

As in France, supermarkets and department stores are the most important retail outlets for avocados; in Belgium there are also large numbers of luxury retailers in Brussels and other large towns such as Antwerp and Ostend; however, restaurants rarely feature avocados on their menus.

b. *Prices*

Import values for all tropical fruits averaged 14p per lb in 1966, 13p per lb in 1967, and 14p per lb in 1968. Wholesale prices were about £1·50 to £1·60 per carton (about 14p to 15p per lb) for Israeli avocados, and £2·00 per carton (about 18p per lb) for South African fruit in 1968.

Retail prices in December 1968 ranged from 12½p to 17p each in department stores and from 21p to 31p each in luxury retailers (where admittedly the quality of the fruit appeared to be better).

Sweden

a. *Distribution*

There is one major importer of avocados in Sweden who handles all Israeli avocados, but a number of wholesalers are engaged in the further distributive stages.

b. *Prices*

The average import value of tropical fruit from Israel was 15p per lb in 1966, 14p per lb in 1967, 17½p per lb in 1968 and 17p per lb in 1969.

The wholesale price for Israeli avocados averaged about £2·01 per carton (about 18p per lb) in 1968. This price may fall if it proves possible to sea-freight avocados to Sweden, or to ship overland. Brazilian avocados, which were sea-freighted, sold for about 15p per lb at wholesale in 1968.

Switzerland

a. *Distribution*

There are two importing firms in the country handling Israeli avocados, which are imported by sea, via Marseilles; another firm imports Kenyan avocados by air. Two of these firms have also imported South African avocados during the summer, one importer obtaining these from London. The largest co-operative marketing organization in Switzerland also imports avocados direct from Israel by air during the winter months.

According to one importer, restaurants are the most important retail outlet for avocados at present, but sales through supermarkets and stores are increasing, particularly through the co-operatives. The large number of foreign nationals, resident in, or visiting Switzerland, probably contributes a considerable proportion of demand for avocados.

b. *Prices*

Wholesale prices for Kenyan avocados averaged £1·74 to £1·94 per carton (14½p to 16p per lb) while Israeli avocados wholesaled at between £1·25 and £1·45 per carton (11½p to 13p per lb) in 1968/9.

TARIFFS AND PHYTO-SANITARY REGULATIONS

Import tariffs levied on avocados are as follows:

	General Tariff	Exceptions
EEC countries	8% ad valorem	(Associated territories—free)
United Kingdom	5% ad valorem	(Free from Commonwealth countries and Republic of South Africa)
Sweden	Free	—
Switzerland	15·00 Swiss francs per 100 kg gross	(7·50 S fr. from GATT members)

There is a possibility that Israel may obtain tariff concessions from the EEC countries if she becomes an associated member of the EEC.

The only phyto-sanitary regulations applicable to avocados are those of Italy which in principle permit imports from Mediterranean countries only, throughout the year. However, potential exporters may apply for a waiver of the regulations for a part, or the whole of the year.

PROSPECTS

The inadequacy of statistical data for past imports makes it impossible to prepare statistical projections of future demand for avocados.

As has been shown in Table 1 there has been a rapid expansion of avocado consumption in the last few years; this has been brought about largely by the aggressive marketing policies of the major suppliers, particularly Israel, and the lower prices resulting from the recent switch to sea-freighting have also contributed. Thus the demand is judged to have been primarily 'exporter generated' rather than 'consumer generated'.

Nevertheless, a far wider public is familiar with the fruit now than was the case a few years ago, at least in the United Kingdom and France, although consumption in these two countries is still only about one-fifth of an avocado per person per year. However, it seems likely that the demand will in the future become more 'consumer generated' and a further expansion in demand can, therefore, be expected. In late 1967 importers in the United Kingdom forecast an increase of 10 per cent per annum for five years but, in fact, the estimated imports in 1968 exceeded imports during 1967 by some 45 per cent. However there was a decline in 1969 imports over the 1968 figure, largely because of supply problems.

The rate at which demand will increase is difficult to predict since it depends on price, further consumer education and the reaction of new consumers (eg doubts were expressed by the trade in Sweden and Germany that there is a large untapped pool of potential consumers), adequate supplies etc and, as has been seen, even importers' short term estimates have proved wrong. Cadillat has estimated that total European demand will amount to a maximum of 12,000 tons in 1975, assuming a 10 per cent increase per annum.[10] However, this would depend on prices remaining at their present levels, or declining somewhat.

Although supplies from the main exporting countries—Israel and South Africa—were limited in 1969, production of avocados is increasing in both these countries and it has been reported that South Africa will be able to export 4,500 tons by 1971,[5] while production in Israel could reach 10,000 tons by 1972 of which some 5,000 to 6,000 tons could be of export grade. Planting of avocados is continuing in both these countries, and Israel anticipates a 30 per cent increase in production per annum over the next few years.[2] The output potential of the minor suppliers, Martinique, Kenya, the Ivory Coast etc, is not known, but it appears that only a small proportion of production is exported from these countries at present. It seems that production of avocados in the Canary Islands, which was at a level of 400 to 500 tons in 1966,[7] is increasing.

The Canary Islands are favourably placed to supply the United Kingdom market by sea, even during the Israeli season, using the regular shipping services.

Even if supplies from the present major sources do not increase as predicted, or if demand increases even more rapidly than expected, it seems unlikely that the more expensive, air-freighted fruit will find a regular market. Present indications are that all avocados will have to compete on quality and price with those from the leading suppliers—Israel and South Africa—and that air-freighted fruit will be imported only to fill temporary gaps in supply. On the whole a new supplier would probably find a better market for avocados during the months April to September than during the winter months since supplies are more limited, and thus prices are higher during the summer months. However, as yet, only the United Kingdom, and possibly also Belgium and the Netherlands, import similar quantities of avocados throughout the year. It is not known whether or not the summer slump in imports into other European countries is entirely due to supply factors, and it may prove that demand is more limited at this time of year.

The largest part of any increase in European demand for avocados is expected to occur in France and the United Kingdom where this fruit has become established among certain sections of the consuming public. However, a large-scale increase in consumer demand is probably dependent upon a reduction in retail prices.

It is not anticipated that demand in other markets will approach that in France and the United Kingdom in the near future, in spite of the fact that Italy and Germany have equally large populations with a high level of income. Some importers are of the opinion that the colonial attachments of France and the United Kingdom have contributed to consumption of avocados in those countries, while Germany and Italy do not have such a recent colonial history. At any rate German importers do not anticipate an 'explosion' in demand. Of the smaller markets, Switzerland and Sweden appear the most promising, since imports of avocados into these countries have been rising rapidly in recent years. It is difficult to determine the quantities of avocados imported into the Netherlands and Belgium, but at present these appear to be the smallest markets for avocados, as distinct from other tropical fruits.

REFERENCES

1 'Agrexco development continues this season', *Fruit Tr. J.*, 1969, **135**, (3), 61.
2 Agrexco. Private Communication.
3 Ets. Omer Decugis, Marseilles. Private Communication.
4 Annual Report of the Secretary for Agricultural Economics and Marketing, Republic of South Africa, 1968-9, 86.
5 'Sub-Tropical Fruit Production in South Africa', J. C. Robinson, *Rhod. Agric. J.*, 1968, **65**, (5), 116.
6 'Rekord Avokado-oes Verwag', *Citrus J.*, 1970, (434), 24.
7 'Avenir des Fruits Tropicaux en Europe', R. M. Cadillat, *Fruits*, 1969, **24**, (6), 337.
8 'La promotion commerciale des fruits tropicaux sur le marché de la CEE', Commission of the EEC, 1967.
9 'Quality control in the heart of Kent aids avocado sales', D. Shapley, *Fruit Tr. J.*, 1969, **315**, (3), 67-70.
10 'Considerations sur les fruits tropicaux', R. M. Cadillat, *Fruits*, 1970, **25**, (6), 486.

Appendices

APPENDIX A

FIRMS TRADING IN AVOCADOS

Note: The following list gives the names of some of the firms which are known to the Tropical Products Institute to be trading in this commodity, but the list should not be regarded as exhaustive. Inclusion in the list does not imply that TPI has any knowledge of the financial standing of the firms.

France:

Ets E. Azoulay et Cie
Marché des Fruits et Légumes
MIN de Paris-Rungis
(94) Rungis.

Charles F. Canale SA
10/12 rue du Colonel Driant
(75) Paris 1.

Compagnie Fruitière
33 Boulevard F. de Lesseps
Marseilles 14

Albert Nataf
52 Cours Julian
Marseilles 2

Ets Omer-Decugis et Fils
45c rue de Toulouse
MIN de Paris-Rungis
(94) Rungis

Société Pomona
Marché des Fruits et Légumes
MIN de Paris-Rungis
(94) Rungis

Ets S. Tedesco et Cie
170 Cours Charlemagne
Lyons 2

United Kingdom:

Broome and Greene (London) Ltd
James Street
Covent Garden
London WC2

Fyffes Group
15 Stratton Street
London W1

Geo.Monro (Produce) Ltd
40 King Street
Covent Garden
London WC2

United Kingdom: *(continued)*

Francis Nicholls
Liverpool Wholesale Market
Stanley Road
Liverpool

T. J. Poupart Ltd
107-115 Long Acre
Covent Garden
London WC2

Louis Reece Ltd
99 Commercial Road
Spitalfields Market
London E1

J. Sainsbury Ltd
Stamford House
Stamford Street
London SE1

J. O. Sims Ltd
Winchester Walk
Borough Market
London SE1

Dan Wuille & Co Ltd
100-104 Long Acre
Covent Garden
London WC2

German Federal Republic:

Fruco Fruchtehandels-Compagnie Hegewisch & Co
60 Basaltweg
2 Hamburg 65

Harder, Meiser and Co
29 Breitenweg
28 Bremen 1

T. Port
Kontorhaus Grossmarkt
2 Hamburg

Italy:

Copam
20c Via Lazio
Rome

Netherlands:

Algemeene Vruchten Import Maatschappij NV
53 Walenburgerweg
Rotterdam 4

Ceka NV
437 Hoofdweg
Amsterdam

Jan de Geus NV
Central Market Hal 9-13
Amsterdam

Albert Heijn
Zaandam
26 Westzijde
Amsterdam

Belgium:

Agrofruit (Belgium)
167 Italielei
Antwerp

Lecocq
19 Boulevard d'Ypres
Brussels

Unifruit
27 Boulevard d'Ypres
Brussels

Sweden:

ASK Centrallen AB
12 Rannarbanan
Helsingborg

Kooperativa Forbundet
Fack S-104 65
Stockholm 15

Moller & Co AB
23-25 Importorvagen
S-121 73 Johanneshov
Stockholm

S. J. Norman AB
5 Styrmansgaten
Stockholm

Switzerland:

Federation of Migros Cooperatives
152 Limmatstrasse
Zurich 5/31

L. G. Pelli
55 Konradstrasse
Zurich 5

Tremblay and Burgermeister SA
49 Route des Jeunes
Geneva 26

Sante Tribo
72 Konradstrasse
8031 Zurich

Table 4
Avocados, mangoes, guava etc: 1961–1965
Avocados: 1966–1969

Imports into France

		1961	1962	1963	1964	1965	1966	1967	1968	1969
Totals	Tons	196·8	325·8	436·0	532·4	703·7	809	1,605	2,322	2,241
	£'000	31·4	66·9	96·5	126·6	165·5	183	370	593	563
of which from:										
Israel	Tons	32·6	110·2	229·3	241·1	269·7	520	865	1,536	1,365
	£'000	8·3	29·2	54·3	61·2	72·9	128	228	424	379
Martinique	Tons	...	81·7	42·3	69·9	178·1	166	497	467	401
	£'000	...	7·4	3·6	8·5	27·4	20	85	82	66
South Africa	Tons	...	18·7	16·7	30·5	27·5	56	88	188	311
	£'000	...	6·9	5·6	9·8	9·3	20	30	62	85
Cameroun	Tons	...	–	17·7	21·6	47·2	36	64	99	93
	£'000	...	–	3·6	4·6	8·5	7	12	17	16
Ivory Coast	Tons	...	–	17·7	–	–	–	–	22	–
	£'000	...	–	4·5	–	–	–	–	4	–
Cuba	Tons	...	–	–	–	–	–	42	–	–
	£'000	...	–	–	–	–	–	6	–	–
Morocco	Tons	...	–	–	–	–	–	–	–	37
	£'000	...	–	–	–	–	–	–	–	6
Other Countries	Tons	164·2	115·2	112·3	169·3	181·2	31	49	10	34
	£'000	23·1	23·4	24·9	42·5	47·4	8	9	4	11

... Not available — Nil or negligible

Source: *Commerce Exterieur,* Direction Generale des Douanes et Droits Indirects

Table 5
Avocados, guavas, mangoes etc: 1963–1968
Avocados: 1969

Imports into the United Kingdom

		1963	1964	1965	1966	1967	1968	1969(a)
Totals	Tons	546	897	779	1,268	1,744	2,532	2,006
	£'000	166	236	273	419	589	811	614
of which from:								
Israel	Tons	189	299	252	471	831	903	1,040
	£'000	69	102	106	174	272	258	319
South Africa	Tons	240	300	308	585	461	1,199	878
	£'000	69	67	109	182	192	413	263
Swaziland	Tons	2	34	3	16	9	71	29
	£'000	1	13	1	6	4	24	11
Canary Islands	Tons	–	–	–	–	2	3	27
	£'000	–	–	–	–	1	–	8
Kenya	Tons	31	70	79	56	156	87	13
	£'000	7	17	20	17	44	28	7
Peru	Tons	–	–	–	–	–	–	4
	£'000	–	–	–	–	–	–	1
United States	Tons	4	37	2	12	10	4	4
	£'000	1	9	1	3	3	1	1
Morocco	Tons	2	6	16	24	20	–	4
	£'000	–	2	4	6	6	–	1
Egypt	Tons	–	–	–	–	–	5	2
	£'000	–	–	–	–	–	2	1
Trinidad	Tons	1	1	7	–	18	14	2
	£'000	1	–	2	–	5	4	1
Other Countries	Tons	77	150	112	104	237	246	3
	£'000	18	26	30	31	62	81	1

– Nil or negligible (a) Provisional

Note: Commodity not shown separately before 1963

Source: *The Trade of the United Kingdom,* HM Customs and Excise

Table 6
Avocados, mangoes, guava etc: 1960–1966
Avocados: 1967–1969

Imports into German Federal Republic

		1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Totals	Tons	2·7	5·4	6·5	10·8	28·6	56·3	79·3	128·1	219·2	206·1
	£'000	1·1	2·1	1·9	3·7	9·3	18·0	25·6	34·7	70·5	71·6
of which from:											
Israel	Tons	–	–	–	7·6	25·4	37·0	63·3	112·0	189·0	175·4
	£'000	–	–	–	2·4	7·9	12·3	20·7	31·3	60·2	59·0
Martinique	Tons	–	–	–	–	–	–	–	6·0	–	–
	£'000	–	–	–	–	–	–	–	1·4	–	–
South Africa	Tons	–	–	–	–	–	–	–	–	6·5	26·0
	£'000	–	–	–	–	–	–	–	–	2·4	10·8
Mozambique	Tons	–	–	–	–	–	–	–	–	13·3	–
	£'000	–	–	–	–	–	–	–	–	4·2	–
Ivory Coast	Tons	–	–	–	–	–	–	–	–	8·1	–
	£'000	–	–	–	–	–	–	–	–	3·2	–
Other Countries	Tons	2·7	5·4	6·5	3·2	3·2	19·3	9·8	10·1	2·3	4·7
	£'000	1·1	2·1	1·9	1·3	1·4	5·7	3·2	2·0	0·5	1·8

– Nil or negligible

Source: *Der Aussenhandel,* Statistiches Bundesamt

Table 7
Avocados, mangoes, guava etc: 1960–1965
Avocados: 1966–1969

Imports into Italy

		1960	1961	1962	1963	1964	1965	1966	1967	1968	1969(a)
Totals	Tons	3·0	4·7	7·3	15·3	10·1	13·9	11·2	27·2	55·5	70·3
	£'000	0·7	1·3	1·8	4·4	2·9	4·0	3·3	7·3	15·9	18·6
of which from:											
Israel	Tons	3·0	2·2	5·9	9·7	9·5	9·8	10·4	27·2	48·4	...
	£'000	0·7	0·6	1·6	3·2	2·6	2·8	3·1	7·3	14·6	...
India	Tons	–	–	–	–	0·5	1·6	0·8	–	–	...
	£'000	–	–	–	–	0·3	0·6	0·2	–	–	...
Greece	Tons	–	–	–	–	–	–	–	–	6·3	...
	£'000	–	–	–	–	–	–	–	–	0·9	...
Uruguay	Tons	–	–	–	–	–	–	–	–	0·6	...
	£'000	–	–	–	–	–	–	–	–	0·2	...
United States	Tons	–	–	–	–	–	–	–	–	0·2	...
	£'000	–	–	–	–	–	–	–	–	0·2	...
Other Countries	Tons	–	2·5	1·4	5·6	0·1	2·5	–	–	–	70·3
	£'000	–	0·7	0·2	1·2	–	0·6	–	–	–	18·6

– Nil or negligible ... Not available (a) From December summary

Source: *Commercio con l'Estero,* Instituto Centrale di Statistica

Table 8
Avocados, mangoes, guavas etc: 1960–1969

Imports into the Netherlands

		1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Totals	Tons	3	5	7	11	45	22	31	50	66	84
	£'000	0·3	1·1	1·6	1·8	5·8	5·3	6·9	11·4	23·0	27·7
of which from:											
Belgium	Tons	–	–	1	2	4	7	5	4	4	9
	£'000	0·1	0·1	0·4	0·5	1·7	1·9	1·5	1·2	1·7	3·5
Israel	Tons	–	–	–	–	–	3	10	16	20	7
	£'000	–	–	–	–	–	1·1	2·4	4·6	5·8	3·4
Surinam	Tons	–	–	–	–	28	–	–	–	–	–
	£'000	–	–	–	–	2·5	–	–	–	–	–
Egypt	Tons	–	–	–	–	–	–	–	4	9	8
	£'000	–	–	–	–	–	–	–	1·1	2·9	2·8
Ivory Coast	Tons	–	–	–	–	–	–	–	–	8	–
	£'000	–	–	–	–	–	–	–	–	2·3	–
Kenya	Tons	–	–	–	–	–	–	–	–	9	14
	£'000	–	–	–	–	–	–	–	–	4·0	6·6
Rep. of South Africa	Tons	–	–	–	–	–	–	–	–	6	7
	£'000	–	–	–	–	–	–	–	–	2·1	2·3
France	Tons	–	–	–	–	–	–	–	–	–	6
	£'000	–	–	–	–	–	–	–	–	–	1·7
United Kingdom	Tons	–	–	–	–	–	–	–	–	–	25
	£'000	–	–	–	–	–	–	–	–	–	4·2
Other Countries	Tons	3	5	6	9	13	12	16	26	10	8
	£'000	0·2	1·0	1·2	1·3	1·6	2·3	3·0	5·6	4·2	3·2

– Nil or negligible

Source: *Maandstatistiek van de Invoer,* Centraal Bureau voor de Statistiek

Table 9
Avocados, mangoes, guavas etc: 1961–1969

Imports into Belgium–Luxembourg

Not separately shown before 1961		1961	1962	1963	1964	1965	1966	1967	1968	1969
Totals	Tons	16	5	8	20	20	32	62	95	85
	£'000	1	1	2	6	5	10	18	30	30
of which from:										
Israel	Tons	–	–	–	–	–	–	42	69	45
	£'000	–	–	–	–	–	–	12	19	16
France	Tons	–	–	–	–	–	–	–	9	16
	£'000	–	–	–	–	–	–	–	4	7
South Africa	Tons	–	–	–	–	–	–	–	6	9
	£'000	–	–	–	–	–	–	–	3	3
Spanish North Africa	Tons	–	–	–	–	–	–	–	3	–
	£'000	–	–	–	–	–	–	–	1	–
Other Countries	Tons	16	5	8	20	20	32	20	8	15
	£'000	1	1	2	6	5	10	6	3	4

– Nil or negligible

Source: *Commerce Exterieur,* L'Institut National de Statistique

Table 10
Avocados, mangoes, guavas etc: 1963–1969

Imports into Sweden

		1963	1964	1965	1966	1967	1968	1969(a)
Totals	Tons	2·0	6·9	10·8	23·6	35·4	63·0	120·0
	£'000	1·1	2·7	3·5	8·2	12·3	24·9	45·5
of which from:								
Israel	Tons	...	5·9	9·8	19·7	30·5	51·2	107·0
	£'000	...	1·8	3·1	6·6	9·8	20·0	38·9
Kenya	Tons	...	...	...	2·9	–	–	3·0
	£'000	...	...	...	1·0	–	–	1·0
France	Tons	...	...	...	...	2·0	–	–
	£'000	...	...	...	...	1·7	–	–
South Africa	Tons	...	...	...	...	...	2·0	8·0
	£'000	...	...	...	...	...	1·4	4·1
Brazil	Tons	...	...	...	...	...	6·9	–
	£'000	...	...	...	...	...	1·9	–
Other Countries	Tons	2·0	1·0	1·0	1·0	2·9	2·9	2·0
	£'000	1·1	1·1	0·4	0·6	0·8	1·6	1·5

– Nil or negligible ... Not available (a) Provisional

Source: *Utrikeshandel,* Statistiska Centralbyran

Table 11
Avocados: 1964–1969

Exports from Israel

Only totals available before date shown		1964	1965	1966	1967	1968	1969
Totals	Tons	545	644	1,214	1,926	3,070	2,825
	£'000	99·3	113·2	252·4	512·7	893·9	847·8
of which to:							
France	Tons	228	335	589	865	1,701	1,647
	£'000	42·5	58·1	116·5	233·2	530·7	506·7
United Kingdom	Tons	252	208	439	764	843	875
	£'000	44·6	35·8	94·4	203·3	244·7	261·7
German Fed. Rep.	Tons	25	35	63	109	196	39
	£'000	4·2	5·8	13·8	29·0	54·3	13·0
Switzerland	Tons	13	13	21	32	75	11
	£'000	2·8	2·8	4·8	7·3	15·4	2·5
Sweden	Tons	–	11	21	28	52	22
	£'000	–	1·7	3·9	5·8	12·5	6·3
Italy	Tons	10	12	31	36	42	17
	£'000	2·1	2·3	8·6	8·1	10·4	4·6
Belgium/Luxembourg	Tons	–	9	16	31	15	6
	£'000	–	1·4	3·3	5·7	3·8	0·8
Denmark	Tons	–	6	15	16	18	1
	£'000	–	2·8	1·0	3·3	4·2	0·4
Netherlands	Tons	–	12	10	16	10	–
	£'000	–	2·0	2·0	3·3	2·9	–
Norway	Tons	–	2	3	5	6	1
	£'000	–	0·3	0·5	1·0	1·3	–
Finland	Tons	–	1	5	5	4	–
	£'000	–	0·2	0·8	1·0	0·8	–
Greece	Tons	–	–	–	–	81	5
	£'000	–	–	–	–	5·0	0·8
Other Countries	Tons	17	–	1	19	27	201
	£'000	3·1	–	2·8	11·7	7·9	51·0

– Nil or negligible

Source: *Israel Foreign Trade,* Central Bureau of Statistics